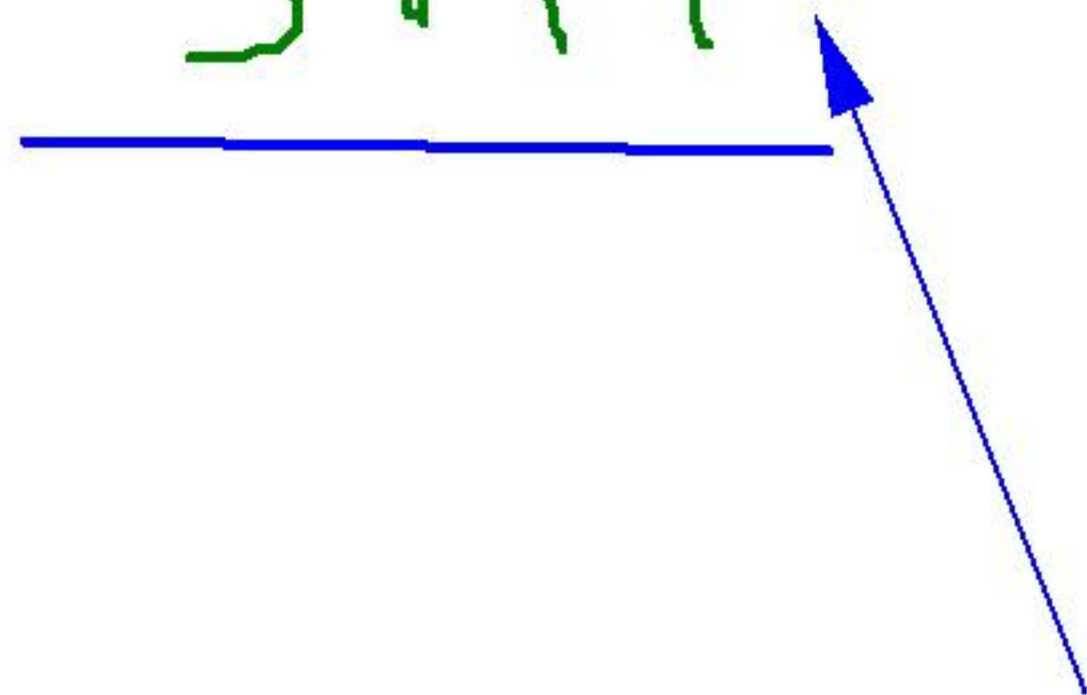


**11** The legs of an isosceles triangle are each 18. The base is 14.

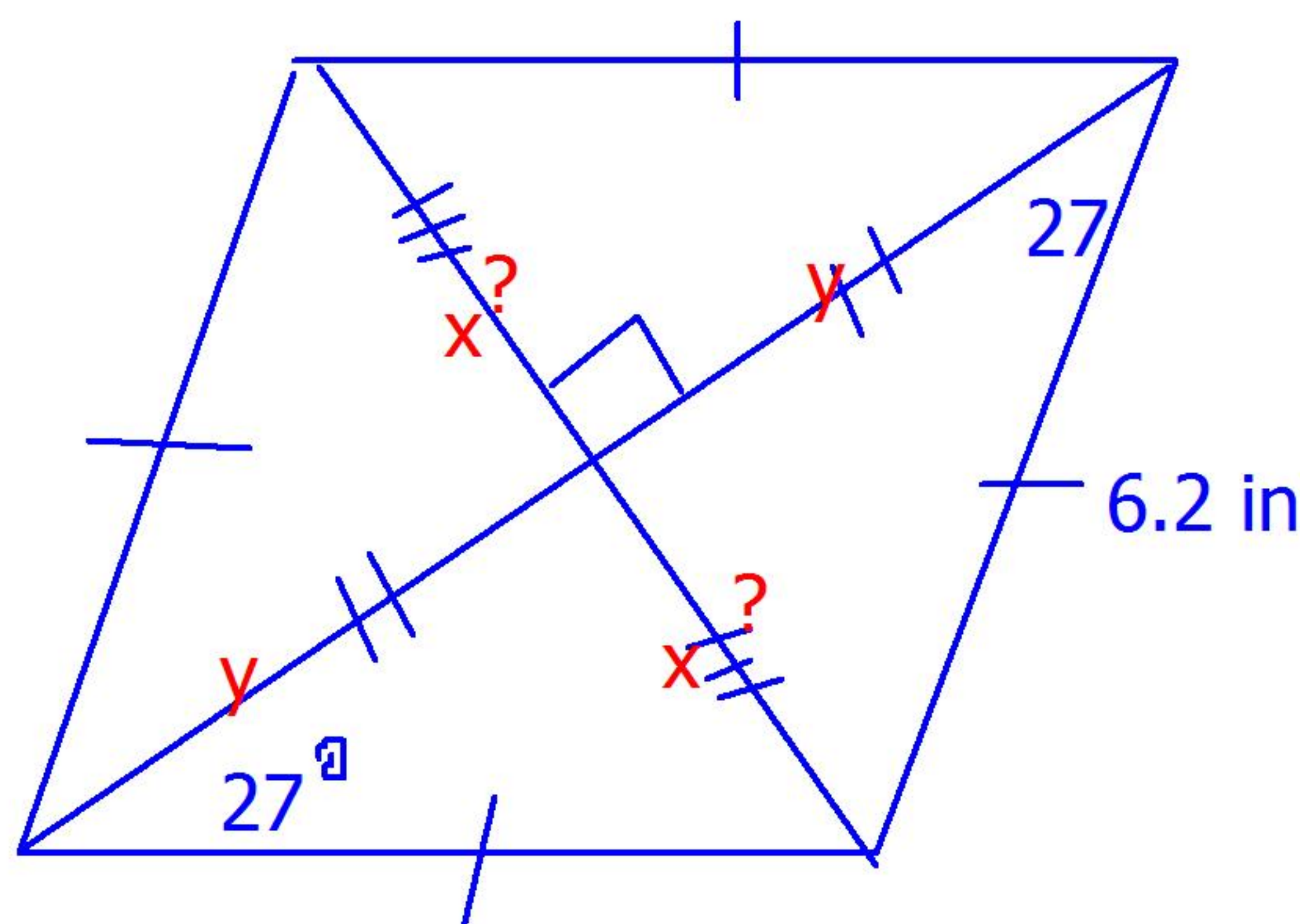
**a** Find the base angles to the nearest degree.  $67^\circ$

**b** Find the exact length of the altitude to the base.

$$\sqrt{18^2 - 7^2} = 5\sqrt{11}$$

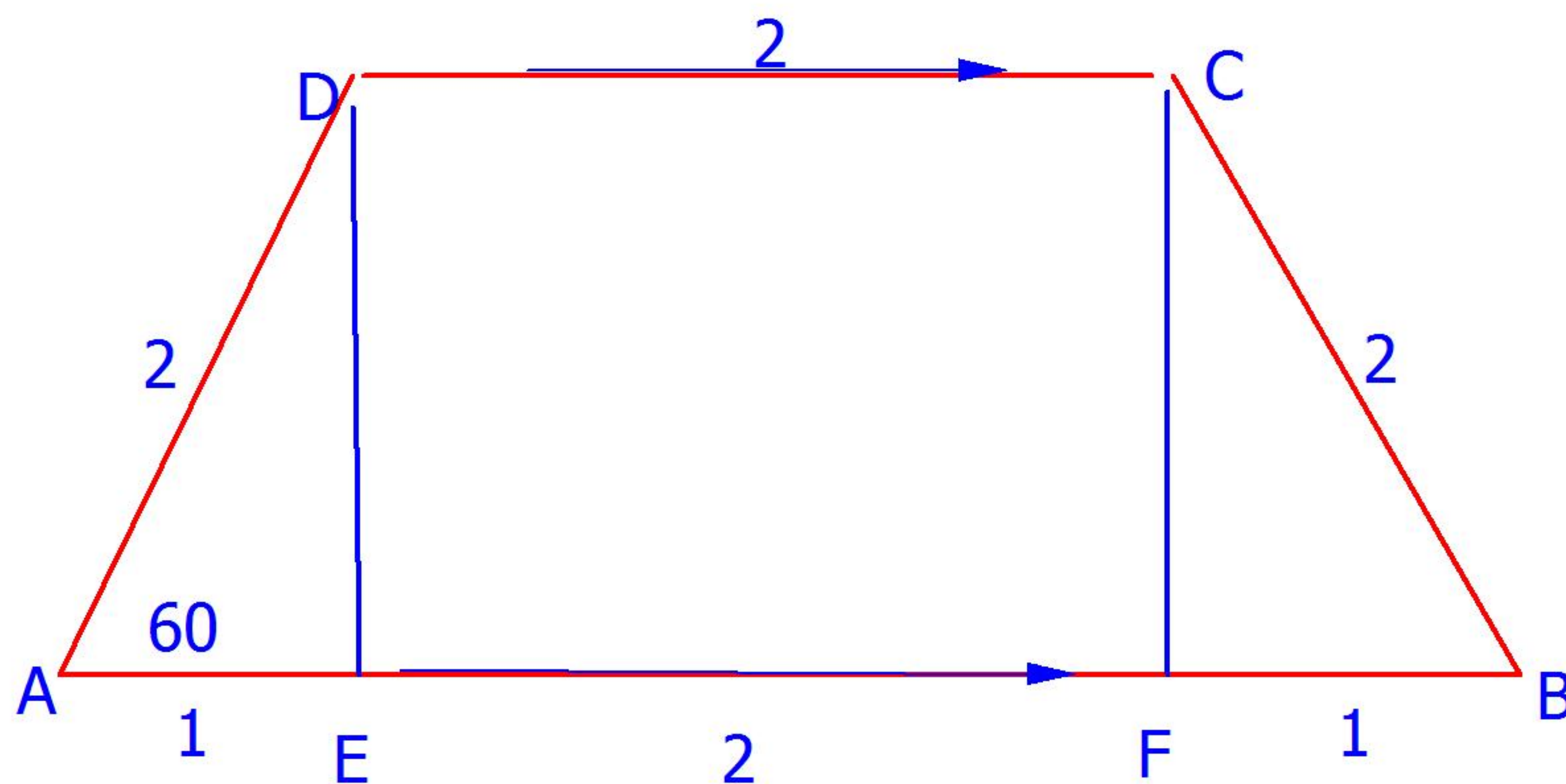


**12** One diagonal of a rhombus makes an angle of  $27^\circ$  with a side of the rhombus. If each side of the rhombus has a length of 6.2 in., find the length of each diagonal to the nearest tenth of an inch.

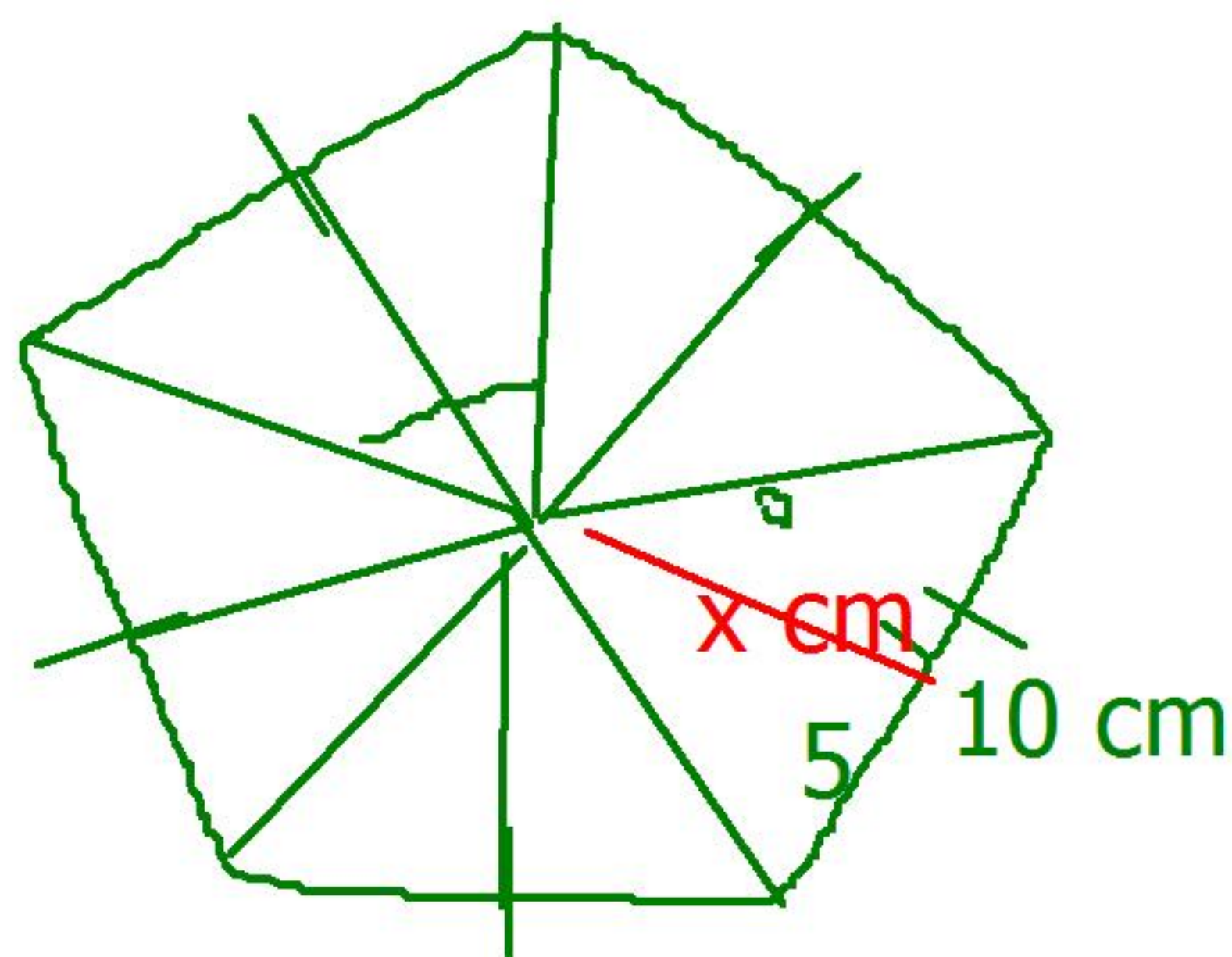




- 13** Find the perimeter of trapezoid ABCD, in which  $\overline{CD} \parallel \overline{AB}$ ,  $\cos \angle A = \frac{1}{2}$ , and  $AD = DC = CB = 2$ .

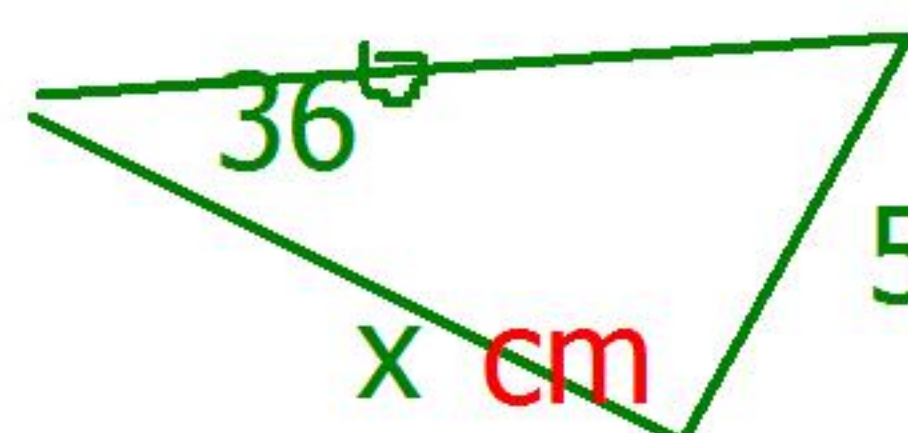


- 14** Find the length of the apothem of a regular pentagon that has a perimeter of 50 cm.



Is the shortest distance from the center to each side of a regular polygon.

$360/10 = 36$  each angle is 36 deg which we use



$$\tan 36 = \frac{5}{x}$$

$$x = \frac{5}{\tan 36} \\ = 6.88 \text{ cm}$$